



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,868	03/18/2004	Hiroyuki Iida	Q80457	5449
65565	7590	10/03/2007		
SUGHRUE-265550			EXAMINER	
2100 PENNSYLVANIA AVE. NW			KAYRISH, MATTHEW	
WASHINGTON, DC 20037-3213				
			ART UNIT	PAPER NUMBER
			2627	
			MAIL DATE	DELIVERY MODE
			10/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/802,868

Applicant(s)

IIDA, HIROYUKI

Examiner

Matthew G. Kayrish

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/24/2007 has been entered.

Response to Arguments

2. Applicant's arguments, filed 4/24/2007, with respect to the rejection of claim 1 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Kasajima et al (US PG-Pub 2003/0007288) and Akagi et al (US Patent Number 5253232).

Applicant's arguments, in a telephone interview on 9/6/2007, with respect to claim 10 have been fully considered and are persuasive. The previous office action, dated 7/12/2007 has been vacated. A new response period has been set.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2627

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al, in view of Akagi et al.

Regarding claim 1, Kasajima discloses:

A sliding member comprising a slidable substrate (figure 12, item 22) and a pressure-sensitive adhesive layer (figure 12, items 26 & 28) provided on one side thereof, and a barrier layer is provided between the slidable substrate and the pressure-sensitive adhesive layer (figure 12, items 27 & 29).

Kasajima fails to specifically disclose:

Wherein the slidable substrate is a porous form comprising a plastic.

Akagi discloses:

Wherein the slidable substrate is a porous form comprising a plastic (column 8, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the slider out of a porous plastic, as taught by Akagi, because this will help to remove dust particles from the surface of the disk, as noted in column 8, lines 14-32.

Regarding claim 2, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, Kasajima further disclosing:

Wherein the slidable substrate has a coefficient of friction of 0.2 or lower (paragraph 2, slider does not contact disc, therefore, coefficient of friction must be less than 0.2).

Regarding claim 6, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, Kasajima further disclosing:

Wherein the barrier layer comprises a thermoplastic resin (paragraph 68, acryl base is thermoplastic).

Regarding claim 10, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, but fail to specifically disclose:

Wherein the barrier layer comprises polyethylene or polypropylene.

However, it is well known to one of ordinary skill in the art at the time the invention was made that polyethylene and polypropylene are both types of plastics, and widely used for many different purposes. Therefore, claim 10 is rejected official notice.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al, and Akagi et al, as applied to claim 1 above, and further in view of Takahashi (US Patent Number 5657300).

Regarding claim 3, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, but fail to specifically disclose:

Wherein the slidable substrate is a porous form comprising an ultrahigh molecular weight polyethylene.

Takahashi discloses:

Wherein the slidable substrate is a porous form comprising an ultrahigh molecular weight polyethylene (column 19, lines 22-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the slider from UHMW-PE, as taught by Takahashi, because this allows for high dimensional accuracy on molding, as stated in column 19, lines 25-27.

Regarding claim 4, Kasajima, Akagi and Takahashi disclose the features of base claim 3, as stated in the 103 rejection above, but fail to specifically disclose:

Wherein the ultrahigh molecular weight polyethylene has a molecular weight of 500,000 or higher.

However, it is well known to one of ordinary skill in the art at the time the invention was made, that UHMW-PEs contain extremely long chains, and the molecular weight is usually in the range of 2-6 million. Therefore, claim 4 is rejected official notice.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al, Akagi et al and Takahashi, as applied to claim 3 above, and further in view of Udea et al (US Patent Number 6289640).

Regarding claim 5, Kasajima, Akagi and Takahashi disclose the features of base claim 3, as stated in the 103 rejection above, but fail to specifically disclose:

Wherein the porous form has a porosity of 20-70%.

Udea discloses:

Wherein the porous form has a porosity of 20-70% (column 2, lines 54-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the slidable substrate with a porosity as given, as taught by Udea, because this will help to control the coefficient of friction, as stated in column 6, lines 30-36.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al and Akagi et al, as applied to claim 1 above, and further in view of Buccellato et al (US Patent Number 2003/0091815).

Regarding claim 7, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, but fail to specifically disclose:

Wherein the thermoplastic resin has a melt viscosity of 5-500 kPa•s.

Buccellato discloses:

Wherein the thermoplastic resin has a melt viscosity of 5-500 kPa•s (paragraph 112).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the adhesive of Kasajima and Akaji with a viscosity high viscosity, as taught by Buccellato, because the viscosity will remain high, even at higher temperatures, as stated in paragraph 112.

Regarding claim 8, Kasajima, Akagi and Buccellato disclose the features of base claim 7, as stated in the 103 rejection above, Buccellato further disclosing:

Wherein the thermoplastic resin is a crosslinked polyethylene (paragraph 113).

8. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al, in view of Akagi et al.

Regarding claim 1, Kasajima discloses:

A sliding member comprising a slidable substrate (figure 12, item 22) and a pressure-sensitive adhesive layer (figure 12, items 26 & 28) provided on one side thereof, and a barrier layer is provided between the slidable substrate and the pressure-sensitive adhesive layer (figure 12, item 21).

Kasajima fails to specifically disclose:

Wherein the slidable substrate is a porous form comprising a plastic.

Akagi discloses:

Wherein the slidable substrate is a porous form comprising a plastic (column 8, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the slider out of a porous plastic, as taught by Akagi, because this will help to remove dust particles from the surface of the disk, as noted in column 8, lines 14-32.

Regarding claim 9, Kasajima and Akagi disclose the features of base claim 1, as stated in the 103 rejection above, Kasajima further disclosing:

Wherein the barrier layer has a thickness of 0.01-0.5 mm (paragraph 66).

Art Unit: 2627

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.

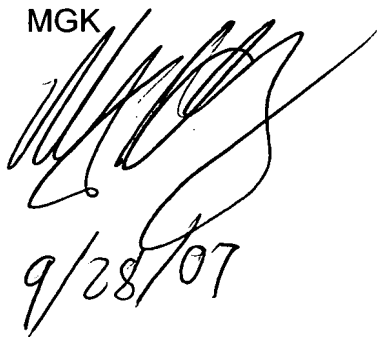
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew G. Kayrish

9/28/2007

MGK



9/28/07

**Brian E. Miller /Brian E. Miller/
Primary Patent Examiner AU2627**